

C L A I M S

1. Toothed belt (1) for use with oil and comprising a body (2),
a plurality of teeth (4) extending from at least a first
5 surface of said body, said teeth being coated by a first
fabric (5), and a plurality of resistant inserts (3);
characterized in that said resistant inserts are produced from
at least a first and a second material.
- 10 2. Toothed belt as claimed in claim 1, characterized in that
said first material covers said second material at least
partly.
- 15 3. Toothed belt as claimed in claim 2, characterized in that
said first material entirely surrounds said second material.
4. Toothed belt as claimed in claim 3, characterized in that
said first material has a lower modulus with respect to said
second material.
- 20 5. Toothed belt as claimed in any of claims 1 to 4,
characterized in that in section said second material occupies
a surface between 15 and 75% of the total.
- 25 6. Toothed belt as claimed in claim 5, characterized in that in
section said second material occupies a surface between 35 and
45% of the total.
- 30 7. Toothed belt as claimed in any one of the previous claims,
characterized in that said resistant inserts are of the type
known as "Lang's twist".
8. Toothed belt as claimed in any one of the previous claims,
characterized in that said first and said second material are
35 chosen in the group constituted by glass fibres, aramid
fibres, polyester fibres, PBO fibres and carbon fibres.

9. Toothed belt as claimed in claim 8, characterized in that said first material is glass fibre.

5 10. Toothed belt as claimed in claim 7 or 8, characterized in that said second material is carbon fibre.

10 11. Toothed belt as claimed in any one of the previous claims, characterized in that said resistant inserts have been treated with an RFL comprising a latex suitable to resist oils.

15 12. Toothed belt as claimed in claim 11, characterized in that said latex comprises an elastomeric material formed from a copolymer obtained from a diene monomer and a monomer containing nitrile groups.

20 13. Toothed belt as claimed in claim 12, characterized in that said copolymer is formed from a diene and from a monomer containing nitrile groups in a percentage between 33 and 49 weight % with respect to the final copolymer.

25 14. Toothed belt as claimed in claim 13, characterized in that said copolymer is formed from a diene and from a monomer containing nitrile groups in a percentage of 39 weight %.

30 15. Toothed belt as claimed in any one of the previous claims, characterized in that said fabric (5) is externally coated by a resistant layer (8), which comprises a fluorinated elastomer, a first elastomeric material and a vulcanizing agent; and in that said fluorinated elastomer is present in said resistant layer (8) in an amount greater than said first elastomeric material.

35 16. Toothed belt as claimed in claim 15, characterized in that said body (2) comprises a mixture based on a second

elastomeric material formed from a copolymer obtained from a diene monomer and a monomer containing nitrile groups.

5 17. Toothed belt as claimed in claim 15 or 16, characterized in that said resistant layer (8) comprises said fluorinated plastomer in an amount in weight between 101 and 150 parts in weight with respect to said elastomeric material.

10 18. Toothed belt as claimed in any of claims 15 to 17, characterized in that said fluorinated plastomer is polytetrafluoroethylene.

15 19. Toothed belt as claimed in any one of the previous claims, characterized in that the back (6) of said belt is covered by a second fabric (7).

20 20. Toothed belt as claimed in any one of the previous claims, characterized in that said second fabric (7) is externally coated by a second resistant layer (8).

21. Toothed belt as claimed in any one of the previous claims, characterized in that said second resistant layer (8) is the same as said first resistant layer.

25 22. Toothed belt as claimed in any of claims 15 to 21, characterized in that said elastomeric material comprises fibres.

30 23. Toothed belt as claimed in claim 22, characterized in that said fibres are present in an amount in weight between 0.5 and 15% with respect to said elastomeric material.

35 24. Toothed belt as claimed in any one of the previous claims, characterized in that it comprises between the toothing (4) and said back (6) sides treated with a polymer resistant to swelling.

25. Timing control system for a drive motor vehicle comprising at least a driving pulley, a driven pulley and a toothed belt (1) for use with oil and comprising a body (2), a plurality of teeth (4) extending from at least a first surface of said body, said teeth being covered by a first fabric (5), and a plurality of resistant inserts (3), characterized in that said toothed belt is produced according to any one of claims 1 to 24.
- 10 26. Control system as claimed in claim 25, characterized in that it comprises a pad tensioner (34) or a pad (35).